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(54) **HYDRAULIC ACTIVATED TOROIDAL APERTURE GENERATION SYSTEM**

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(58) **Field of Search** 114/242, 253, 114/254, 311

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(57) **ABSTRACT**

A hydraulically activated device for spacing plural towed lines includes a toroidal and inflatable tube member defining an aperture in an opening of the toroid shape. A plurality of connectors each secure a corresponding one of the plural towed lines to the toroidal and inflatable tube member. The toroidal and inflatable tube member is inflated with sea water to a predetermined volumetric configuration suitable to an operating speed range of the towed lines and upon inflation will space the towed lines in a three-dimensional arrangement therearound. A sheath may also be formed around the toroidal and inflatable tube member, the sheath being formed in cross section as a tear drop or similar streamlined shape.

18 Claims, 3 Drawing Sheets